

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 8, line 24, as follows:

21 In figure 1 the top graph displays ~~[[50]]~~ 45 seconds of a flow graph of a patient at NREM2-sleep stage. The lower graph of this figure shows an estimated first derivation of the flow graph. Between both graphs the hereby automatically detected transition points are indicated by vertical lines.

Please amend the paragraph bridging page 8, line 29 to page 9, line 5, as follows:

22 For differentiation between stable and non-stable respiration, ~~[[there]]~~ a measurement of similarity of a plurality of successive breathing cycles is considered. The height of a cross-correlation-function is an appropriate measurement for the similarity of the present breathing cycle with preceding breathing cycles. The top graph shown in figure 1 thereby illustrates the breathing gas flow of a patient during NREM2 sleep stage. The high vertical line of the middle graph indicates the end of inspiration, the lower vertical line of the middle graph indicates the end of ~~inspiration~~ expiration. The first derivation of the flow graph which allows detection of the end and the beginning of inspiration is illustrated as the lower graph. Because of the different extrema of the first derivation of the flow graph it is possible to reliably distinguish between individual breathing phases.